

DEPHOSPHORIZING METHOD OF MOLTEN METAL

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Abstract

PURPOSE: To dephosphorize molten metal efficiently while avoiding excessive decarburization and considerable drop of molten metal temp. by changing the ratio of solid oxygen of the gas and solid oxygen to be blown together with quicklime for the purpose of dephosphorization of molten metal properly throughout the oxygen feed period.

CONSTITUTION: In the stage of dephosphorizing molten metal by blowing quicklime, gaseous oxygen and solid oxygen such as mill scale simultaneously into the molten metal, the solid oxygen is blown by maintaining the ratio of the solid oxygen with respect to the total of the gaseous oxygen and the solid oxygen at 50-80% at least in the initial period of the oxygen feed period, 65-100% in the end period and 50-100% in the middle period. Good results are obtained if the above-mentioned quicklime, gas and solid oxygen are blown simultaneously into the molten metal by using preferably a blow pipe which is a single pipe, and it is equally well to constitute the blow pipe in such a way that the quicklime and the solid oxygen are blown together with an inert gas through the outside pipe of double pipes and that the gaseous oxygen is blown through the inside pipe.